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The Yarn of the "Nancy Bell."
Twas on the shores that round our coast
From Deal to Ramegate span,
That I found alone on a piece of stone,
An elderly naval man.

His hair was woody, his beard was long,
And woody and long was he;
And I heard this night, on the shore rectie,
In a singular minor key—

"O, I am a cook and a captain bold,
And the mate of the Nancy brig,
And a bo'sun tight, and a midshipmite,
And the crew of the captain's gig."

And he shook his fists, and he tore his hair,
Till I really felt afraid,
For I couldn't help thinking, the man had been
drinking.

And so I simply said:—
"O elderly man, its little I know
Of the duties of men of the sea,
And I'll eat my hand if I understand
How can you possibly be

"At once a cook and a captain bold,
And the mate of the Nancy brig,
And a bo'sun tight, and a midshipmite,
And the crew of the captain's gig!"

Then he gave a hitch to his trousers, which
Is a trick all seamen learn,
And having got rid of a thumping quid,
He spun this painful yarn:

"Twas in the good ship Nancy Bell
That we sailed to the Indian sea,
And there on a reef, we came to grief,
Which has often occurred to me.

And pretty nigh all o' the crew was drowned.
(There was seventy-seven o' soul!)
And only ten of the Nancy's men
Said 'here' to the muster-roll.

"There was me, and the cook, and the captain
bold
And the mate of the Nancy brig,
And the bo'sun tight and the midshipmite,
And the crew of the captain's gig."

"For a month we'd neither wittles nor drink,
Till a hungry we did feel,
So we drew a lot, and, accordin' shot
The captain for our meal.

"The next lot fell to the Nancy's mate,
And a delicate dish he made;
Then our appetite with the midshipmite,
We seven survivors stayed.

"And then we murdered the bo'sun tight,
And he much resembled pig;
Then we wittled free, did the cook and me,
On the crew of the captain's gig."

"Then only the cook and me was left,
And the delicate question 'Which
Of us two goes to the kettle?' arose
And we argued it out as sich.

"For I loved that cook as a brother, I did,
And the cook he worshipped me;
But we'd both be blowed if we'd either be stowed
In the other chap's hold, you see.

"'I'll be eat if you dines off me,' says Tom,
"'Yes, that,' says I, 'You'll be
I'm boiled if I die, my friend,' quoth I;
And, 'Exactly so,' quoth he.

"Says he: 'Dear James, to murder me
Were a foolish thing to do,
For don't you see that you can't cook me,
While I can—and will—cook you!'

"So he boils the water, and takes the salt,
And the pepper in portions true,
(Which he never forgot), and some chopped shalot,
And some sage and parsley too.

"Come here," says he, with proper pride
Which his smiling features tell;
'Twill soothe you, if I let you see
How extremely nice you'll smell.'

"So he stirred it round, and round, and round,
And he sniffed at the foaming froth;
When I ups with his heels, and smothered his
squalls.

In the scum of the broiling broth,
And I eat that cook in a week or less,
And as I eating be
The last of his chops, why I almost drops,
For a wessel in sight I did see.

"And I never lark, and I never smile,
And I never lark nor play;
But I sit and creak, and a single joke
I have—which is to say;

"O I'm a cook and a captain bold
And the mate of the Nancy brig,
And a bo'sun tight, and a midshipmite,
And the crew of the captain's gig."

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The School Journal.

Entered at the New York Post Office for transmission through the mails as SECOND-CLASS MATTER.

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THE SCHOOL JOURNAL.

A Weekly Journal of Education.

AMOS M. KELLOGG, Editor.

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New York, June 11, 1881.

Keep us Posted.

Let every reader of this paper send us word of the time when will occur either the Institute, the County Associations, the Town Association, or the time for Examination. *Keep us posted.* Some attend to this matter, others "let it slide." Send us papers containing educational news. And generally be on the alert. Be in all senses a *live* teacher. Let every reader be sure and tell us of the time and place of holding every town, city, county, or state association that he may know of. If it is an institute tell us the name of the conductor and any other facts. It is time that EDUCATIONAL facts were known and published.

"OUR Supt. subscribes to all the leading educational; but we both give the highest preference to the INSTITUTE thinking it worth more monthly than the others weekly."

ALL who intend to attend the National Education Association at Atlanta, should at once notify Mr. W. B. Bonnell, Atlanta, Ga., so that arrangements may be made for their reception.

A subscriber writes, "I send you the name of Miss—. This is the twelfth I have sent, and all are subscribers in this town except—. He says he gets so many sample copies that he does not wish to subscribe." That is a smart fellow to have in a school isn't it? Such men are encouragers to the diffusion of sample copies. Now we know what becomes of the sample copies. Book publishers suffer in the same way. The "sample fiend" still lives, look out!

We have pointed out Brooklyn as a city behind the times educationally, but a bomb-shell has exploded there lately of a kind we did not expect. The Common Council ordered an investigation of accounts and presto! the account books are mysteriously carried off—stolen, that is the word. A horse wagon load is taken and no one knows anything about it! It has been suspected there was "something rotten in Denmark" for a long time.

THE teachers who attend conventions is said to be smaller and smaller every year! Who is to blame. Some say they have had school enough, some say they get no good, others that it costs them money. All of this class don't mean to improve if they can help it; they say "let well enough alone." New York State that has 30,000 teachers; will furnish about 300 or less. New York City that has 3,000 teachers will not furnish more than 3! The educational world moves—a little, just a very little.

LET all the New York teachers remember that the New York State Teachers' Association, holds its Thirty-sixth Anniversary at Saratoga Springs, July 5, 6 and 7, 1881. We are glad to say that C. W. Wasson will arrange an exhibit of mechanical work by pupils in our public schools. Addresses will be delivered by Geo. W. Curtis, Chauncey M. Depew, B. G. Northrop, Charles E. Fitch, Whitelaw Reid, Mrs. Mary A. Livermore and Anthony Comstock. Those members who cannot attend the next meeting of the Association will please send their annual fee to Supt. M. M. Merrell, Treasurer *pro tem.*, Elmira, N. Y.

A New York teacher wrote us to change the address of the JOURNAL and then kindly adds "Please let me say that every week the paper contains something apparently written expressly for me." That brief line has untold value to me. It is a constant burden-some thought, how to render the paper of practical value? I believe the teacher stands in the place of power, and if he properly prepares himself he will do a work of extraordinary value. But he too often wrongly conceives of the work and then wrongly prepares himself. Hope every one who reads the pages of the paper will stop as

did the above reader and estimate the value it contains and then not be afraid to say it. A. M. K.

THE death of Samuel S. Randall, formerly Supt. of Schools in New York City will recall to all who knew him a life well spent in behalf of education. It will not be easy to write his biography. He was an able officer, a model husband and father. In his intercourse with the teachers he was urbane and sympathetic. There are no small number who believe his administration to have had excellencies not attained by his successors. Mr. Randall was singularly upright and candid. He felt the beat of the young hearts of the children and he did what he could for them. To have over one's grave the inscription "Here lies a Friend of the Children,"—what would be higher.

The Saloon.

Mr. Richard Grant White credits the hoodlums and the trampism to the public school. But along with the public school another institution has developed with amazing rapidity—it is the saloon. The respectable people have little to do with it, and so they only know that it is around the corner. The public schools cost each man and woman in our country \$2 per year; the saloons cost each man and woman \$17. The public school is a center of beneficence; the saloon is a center of danger.

The tavern always existed in this land, but the saloon is another thing. Here the young men gather, here come the politicians, the men of influence, the hoodlums, and the bummers. It is the outgrowth of our political system, or rather our political parties use the saloon immediately. No man that is down on the saloon can be elected. To be popular means to be in favor with the saloon. School or saloon—which?

Esprit de Corps.

Numerous ways have been proposed to increase enthusiasm among teachers. Mr. A. S. Sullivan of this city, in a lecture approves of pensioning teachers, because it will develop an *esprit de corps* among the teachers. Now we beg to say it will do no such thing. It will develop the desire to get positions and to hold them; it will develop "the machine;" it will develop the power of the clique who now run the machine. There was more *esprit de corps* among the teachers when they were paid less than one half of the sum they now receive under the old Public School Society. Do those principals who get about \$4,000 per annum feel twice as much as those who get \$2,000? If anything, it is in a reverse order. It is a very nice theory that giving of medals, scholarships, gold watches, etc., promotes study in a school. But it utterly fails; the scheme is a pestilential one, and to attempt to raise an *esprit de corps* among the New York teachers by means of pensions! Suppose Moody and Sankey apply for pensions, because they have converted sinners! Pension the teachers if you will, but don't suppose it will increase their *esprit de corps*.

THE SCHOOL-ROOM.

For the SCHOOL JOURNAL.

Lessons in Penmanship.

By A. E. S.

I believe penmanship, of all branches taught, is the most neglected. I have talked with a number of teachers lately, some of them graduates of normal schools, and invariably the remark is made, "I dread my writing class more than anything else in school, because I do not know how to teach penmanship." Why is this? I answer, the reform in methods have not reached penmanship. Even in our normal schools the subject does not receive the attention which it requires.

Our county superintendents pay large sums to noted professors for their services in conducting normal institutes, but cannot afford even a small sum for a special teacher in penmanship. Is it any wonder that while we are improving in methods of teaching everything else, we are standing still in penmanship?

I find in the *Penman's Art Journal* for March the following: "The ruling idea seems to be to cut the letters into pieces for beginners in order to educate the eye as to form, and to simplify the movement. I believe that the eye is better educated by seeing the whole letter, and having attention called to the parts as illustrated in the whole letter, than by destroying the unity of the form." To me the method of chopping the letter up and teaching the elements or principles before the letter, is like teaching to read by the old letter method. We are reaching out after reform in methods, let us have a reform in this branch also.

We are told that only those who have a natural talent for writing can become good penmen. As well say, that only those who have a natural talent for grammar can become good grammarians. As penmanship is taught in most of our schools, it is the imitation, not the intellectual ability of the child, which is cultivated. He who has a faculty for imitation will learn to write. He who has not will fall into the belief that he is one of the unfortunates who are forever doomed to write a poor hand.

To teach anything successfully you must set the mind of the pupil to work. Of nothing is this more true than of penmanship. Cultivate the eye and there will be little trouble in guiding the hand. Let me illustrate my method. I have a class of little girls in the first reader. I give them, in connection with their reading and number-work, written work to be put upon their slates, say two or three words found in their reading lesson. I do not, until they can make all the letters neatly, give them many words at a time. Instead of teaching the principles by number, I use the terms right and left curve, straight, slanting, stroke, oval and loop. I teach them that all upward strokes are curving, all downward strokes (with a few slight exceptions) are straight on a slant. I find, on examining the work, that the downward strokes are perpendicular or curved. I repeat that downward strokes are straight. I insist upon this till the fault disappears. In this manner I correct the work of each pupil at every recitation, taking one thing at a time, seek out the prevailing fault and correct that first. Compare letters with regard to similarity of form, for example, show that the last part of h, m, n and p, and the first part of v and y are alike; that a and first part of d, g and q are the same. Do not attempt too much at once, or failure is the result. I give a similar lesson on paper with lead pencil at the regular time for writing. When they get through this book they will be able to write neatly anything in the book.

For the SCHOOL JOURNAL.

Occupation for Young Children in School.

By ANNA JOHNSON.

VIII. PRACTICAL ARITHMETIC.

Provide the children with envelopes containing small pieces of blue, yellow, red, and if procurable, green, orange, and purple gelatine papers. The teacher should be supplied with a great variety of colored objects, such as worsteds, strings of beads, papers, cambrics, glass, ribbons, crayons, flowers, color chart, etc. Numerical frames containing the primary and secondary colors, may now be obtained, which will be of great assistance.

The teacher may select a blue object and hold it up before the children; ask them to find the same color among their papers; call upon some to name it. Have them select all the blue objects from the teacher's collection, and name the different things they know, that are blue

Teach the yellow and red in the same way. Have the children name the three colors, pointing to each, and give the term primary colors. Ask the color of the sky, butter cups, fire, etc.

Have the children place their pieces of blue and yellow papers together, hold them up so the light will shine through them, ask what color is made, and what colors produced it. Have them select all the greens, and name things of that color. In the same way have them place their blues and reds together, also their reds and yellows. Let them give the three new colors made, and give the term secondary colors. Drill thoroughly on the combinations. Placing the colors together and seeing for themselves will fix the combinations in their minds.

The tertiary colors may be taught in the same way. If the secondary colors in gelatine papers cannot be obtained, glass may be used instead. Now test the children in all the colors learned, have them select an object, state the color, and whether it is primary, secondary or tertiary, if not primary, of what colors it is composed. When they cannot answer readily allow them to refer to their papers.

The shades may be taught from the color chart. Encourage the children to bring as many shades as they can find.

The colors of the rainbow may be nicely shown by means of a glass triangular prism. The colors may be thrown on the wall or on a piece of white muslin fastened up for the purpose. Explain to them the formation of the rainbow.

Teach the colors that harmonize by arranging worsteds or flowers together, and leading the children to decide what colors look well together.

When the children are left to themselves, they can write on their slates the colors learned and how formed. They may first copy them from the board, and afterward reproduce them from memory.

The black-board work may be arranged thus:

Primary Colors.	blue, yellow, red.	Secondary Colors.	green—blue and yellow. orange—yellow and red. purple—blue and red.
Tertiary Colors.	citrine—green and orange. russet—orange and purple. olive—green and purple.		
Colors that harmonize.	red and green—blue and yellow. blue and orange—yellow and red. yellow and purple—blue and red.		
Reds.	crimson. carmine. scarlet. vermilion. pink.	Yellows.	citrine. yellow. lemon. canary. straw.
Blues.	indigo. ultramarine blue. Prussian. light sky.	Orange.	dark amber. orange. salmon. buff. cream.
Greens.	olive. green. emerald green. pea green. light green.	Purples.	royal purple. purple. violet. lilac. lavender.
Browns.	maroon. brown. russet. snuff. drab.	Colors of the rainbow.	violet. indigo. blue. green. yellow. orange. red.

For the SCHOOL JOURNAL.

Language Lessons---Synonyms.

By PROF. CHARLES DOD.

9. ABJECT, MEAN, LOW, BASE, VILE.

These words agree in describing that which is despicable. They differ in degree, and in the kind of actions and characters to which they may appropriately be applied. We say *abject* in spirit; *mean* in nature; a *mean* action; *low* in birth, education, habits and sphere of life; a *base* traitor; a *vile* malefactor. The *abject* and the *mean* awaken contempt; the *low* and the *vile* provoke disgust; the *base* excites abhorrence and indignation. *Abject* denotes a peculiar state into which a man is thrown, so as to deprive him of the qualities that ought to characterize his manhood; hence we speak of *abject* fear, the *abject* spirit of a slave, *abject* superstition, etc. The other adjectives describe what is inherent in a man's nature. A man is *abject* involuntarily; he is *mean*, etc., voluntarily.

The *low* is that which is positively sunk in itself; the *mean* is that which is comparatively low in regard to the relative condition of the individual. A misplaced economy in people of wealth is *mean*, but swearing and drunkenness are *low* vices. The *mean* character acts inconsistently

with his honor or his respectability; he is below himself; his conduct is not what we might reasonably expect of him. The *low* character, on the other hand, indulges in habits, tastes and pursuits, uses language, and displays manners, in consonance with his condition in life. But when a man of culture and social rank descends to vulgar artifices to carry a point, we denominate his conduct *mean*, if the object is trifling or apply a stronger epithet if moral obligations are disregarded.

Base denotes the greatest degree of moral turpitude; *vile* and *mean* denote, in different degrees, what is destitute of all claims upon our esteem. Depravity of mind dictates *base* conduct; lowness of sentiment leads to *vileness*; a coarse and selfish disposition engenders *meanness*. *Base* is opposed to *magnanimous*; *vile* to *noble*; *mean* to *generous* or *dignified*; *low* to *high* or *refined*; *abject* to *spirited*.

QUESTIONS.

In what do these words agree? In what do they differ? Give examples of the proper application of each. What feeling do the *abject* and the *mean* awaken when we contemplate an exhibition of them? What do the *low* and the *vile* provoke? What feeling does *baseness* excite? What does *abject* denote? Illustrate. Are men *mean*, *low*, *base* and *vile* by their own volition? Contrast *low* with *mean* by definition and example? How does the *mean* character act? How, the *low*? Compare the force of *base*, *vile* and *mean*. What dictates *base* conduct? What leads to *vileness*? Whence does *meanness* spring? What is the opposite of *base*? Of *vile*? Of *mean*? Of *low*? Of *abject*?

EXERCISE.

1. When the Papal power was at its height, the princes of Europe obeyed its commands with the most—servility.
2. "There is hardly a spirit upon earth so—and contracted as to centre all regards on its own interest exclusive of the rest of mankind."—Bp. BERKELEY.
3. Cock-fighting and pugilism are—amusements.
4. He was so fond of praise that the—flattery was acceptable to him.
5. Benedict Arnold was guilty of the—treachery.
6. The—man stoops to get what he wants; the—man crawls in order to submit.
7. He who abuses the confidence reposed in him, and employs it to work injury to the unsuspecting, acts—.
8. He obtained power, but he obtained it by the—arts of the demagogue.
9. No one will seek the society of—companions unless he shares their—propensities.

KEY.

1. *Abject* (implying want of spirit.)
2. *Mean* (opposed to generous.)
3. *Low*. Why?
4. *Vilest* (because flattery is not acceptable to persons of noble sentiments.)
5. *Basest*. Why?
6. *Mean* (because the act spoken of is inconsistent with gentlemanly dignity, and *abject* (because the act shows want of spirit.)
7. *Basely*. Why?
8. *Vilest* (because we cannot esteem the arts of the demagogue; they are the offspring of vulgarity.)
9. *Low* and *low*. (Having a nature destitute of refinement.)

Primary Lessons in Arithmetic.

This stick or measure is one foot long; this other stick or measure is one yard long; show me how far a foot goes on the yard measure. (The pupil should be provided with a foot and a yard measure or with bits of stick, tape or string of the proper length.)

Try if you can find out how many feet are as long as a yard.

Measure this chair. Is it a foot broad? How many feet high is it?

Measure this table. Is it a yard high? Is it a yard across?

Measure the door with the yard measure. Is it a yard wide? Measure it with the foot measure. How many feet wide is it?

Measure two yards along the floor beginning at the wall. Measure three feet in the same manner.

Try if you can measure the length of a yard on the floor with a foot measure.

Make a triangle: how many lines or sides are there? If this side were a foot long and the other sides were each

of the same length, how many feet would all the sides together measure? (If necessary the pupil should be shown how to make a triangle.)

What is another name for "one," "one"? (This is the first question on abstract numbers. The young pupil should be studiously kept from figures until he reaches the latter sections.)

When I say "one," "one," how many words do I say?

When I say "two," how many words do I say?

Two is a short way of saying what?

What would two things be called if one were taken away?

What would "one" be called if another were added or put to it?

Put out five counters; now put out another counter; five counters and one are called six counters.

Put these six counters into twos; how many twos are there?

Put them into threes; how many lots of three are there?

Put them into ones; how many ones are there?

How many lots or heaps of four can you find in six counters? (One, and a lot of two besides.)

How many fives can you find in these six counters?

A lot of six counters contains two lots of how many?—It contains three lots of how many?

I will cut this square piece of paper into two parts of the same size: what is each part called? (Half.) How many halves is it cut into? Here is a counter which is cut into two parts of the same size; what is each of those parts called? (A bit of cork or stick will answer the purpose of a cut counter.) How many halves are there in the whole counter? Here is a whole counter that has not been cut; how many halves could it be cut into?

Draw a line on the slate; divide it into two parts of the same length; what is each bit called? Half of what? The whole line is made up of how many halves?

If I gave to you one apple between yourself and your sister (or brother, etc.) how much of it ought you to keep, and how much should you give to her?

This weight is called a pound weight. Take it in your hand. (The teacher should give a pound weight to the pupil.) A piece of bread or a stone, or anything that is just as heavy as this, would be said to weigh a pound or to be of a pound weight.

This weight is half a pound. Take it in your hand. How many of these weights do you think would weigh as much as a pound weight? (The teacher should if possible show the pupils a pound and a half pound weight. They will not readily forget the knowledge of weights and measures which they receive directly from objects; and all subsequent questions on weights and measures will interest them much more, and be much better understood. A number of very entertaining exercises, similar to those with the yard measure, may be performed by the child with a small pair of scales and a few weights. Scales might be made with two bits of thin wood, tin, card or pasteboard and a bit of stick; and stones would serve for weights. The trouble that such exercises cause the teacher is small, and would be amply repaid by the pleasure and progress of the pupil.)

A girl carried a pound loaf in one hand and a two-pound loaf in the other; how many pounds of bread did she carry?

If a loaf weighed twice as much as this pound weight, how much would it weigh? Suppose that you had picked up a stone that was half as heavy as this pound weight, how much would you say that it weighed? How many such stones would weigh a pound?

A man went to market and bought a pound of meat, two pounds of bread and a pound of butter; how many pounds had he to carry home in his basket?

How many pint pots hold as much as two quart pots?

A farmer had two sheep, each of which had two little lambs; how many lambs were there?

Another farmer had two sheep and three lambs; one of the sheep had one lamb only, how many lambs must the other sheep have had?

Try in how many ways you can arrange four cubes or counters.

Put out two counters; take away half.

Put out twice as many pebbles as one.

Put out four counters; take away half.

Put out twice as many pebbles as two.

Put out half as many pebbles as four.

Put out three times as many shells as one.

One sheep had one lamb, another sheep had twice as many lambs; how many lambs had the last sheep?

Arrange six counters in pairs; how many pairs do you find?

Put out six shells. If one shell be taken from six how many remain?—if two be taken how many are left?—if three be taken?—if four?—if five?—if six be taken? (The shells should be before the pupil during this and several following questions, but they should not be touched by him unless he is not able to answer the questions without.)

If once two be taken from six shells how many are left?—if two twos, or twice two?—if three twos, or three times two?

How many things are three chairs, two candlesticks and a fiddle?

Try if you can find out without looking, and only by feeling, how many counters are in each of my hands? (Let three be in the left hand, and five be in the right.)

If a lot of three (or once three) be taken away from six shells, how many remain? If two threes, or twice three, be deducted or taken away from six shells, how many are left behind?

How many shoulders have you and I? How many have you and I and Anne?

A woman had two daughters and three sons, how many children had she? How many were with her at dinner one day, when the oldest girl and boy were at their grandmother's?

A hen had six chickens, but some rats killed two of them; how many chickens had she then left of the six?

Another hen had also six chickens, and some rats ate one, and two fell into a ditch and were drowned; how many chickens had this hen left?

I bought three parcels of cakes; each parcel contained three cakes; I gave one cake of each sort to a little boy, and one cake of each sort to the boy's sister; can you tell me how many cakes were left? (This question may, perhaps, require the aid of counters.)

For the SCHOOL JOURNAL.

A Reading Lesson.

THE LAST BUCCANEER.

By T. B. MACAULAY.

- (1) The winds were yelling, the waves were swelling,
The sky was black and drear,
When the crew with eyes of flame brought the ship
Without a name
Alongside the last Buccaneer.
- (2) "Whence flies your sloop full sail before so fierce a
gale,
When all others drive bare on the seas
Say, come ye from the shore of the holy Salvador,
Or the gulf of the rich Caribbees?"
- (3) "From a shore no search hath found, from a gulf no
line can sound,
Without rudder or needle we steer;
Above, below, our bark, dies the seaowl and the shark,
As we fly by, the last Buccaneer.
- (4) To-night there shall be heard on the rocks of Cape de
Verde
A loud crash and a louder roar;
And to-morrow shall the deep, with a heavy moaning,
sweep
The corpses and the wreck to shore."
- (5) The stately ship of Clyde securely now may ride
In the breath of the citron shade;
And Severn's towering mast securely now flies fast
Through the sea of the balmy trades.
- (6) From St. Jago's wealthy port, from Havana's royal
port,
The seaman goes forth without fear;
For since that stormy night not a mortal bath had sight
Of the flag of the last Buccaneer.

QUESTIONS.

What is the subject of the poem?

Give in your own words your idea of the story.

What is meant by "the last Buccaneer?" (1)

Who were the Buccaneers?

Why is the second verse in quotations?

Who is the speaker in that verse?

Who in verses second and third?

What is meant by the "shore of the holy Salvador?" (2)

What is meant by the "gulf of the rich Caribbees?" (3)

What is a sloop? a bark?

How many names for a vessel are used in this poem?

What are such similar terms called?

Where is Cape de Verde? St. Jago? Havana? (4) (5)
Why is St. Jago called "wealthy" and "Havana's royal port?" (6)

What is meant by "ship of Clyde?" "Severn's towering mast?" (5)

What is meant by "citron shades," "balmy trades?" (5)

What is meant by "needle"—"drive bare?" (3) (2)

What is the meaning of sound? (3)

Why "securely may ride?" (5)

Why "Severn's towering mast?" (5)

What figure of rhetoric is employed in the above line?

Why is "ship of Clyde" mentioned? (5)

Where is the "sea of the balmy Trades?" (5)

Why does "the seaman go forth without fear?" (6)

What is meant by "mortal?" (6)

Why "hath mortal not had sight," etc.? (6)

What became of the last Buccaneer? (6)

For the SCHOOL JOURNAL.

Lessons in Numbers.—No. III.

Let the teacher have the figure below drawn on the black-board; then let him give out the following questions:



80-87. How many days will it take to paint the walls of A at one square (100 sq. feet) per hour, ten hours per day? How many for B? for C? for D? for E? for F? for G? for H?

87-95. How much paint will it take at 3 lbs. per square for A? for B? for C? for D? for E? for F? for G? for H?

96-103. How much oil at one half gallon per square for A? for B? for C? for D? for E? for F? for G? for H?

104-111. Oats weigh 32 lbs. to the bushel, (2150.4 cu. in.) what is the weight of the bushels of oats that A will contain? B? C? D? E? F? G? H?

112-119. What weighs 60 lbs. to the bushel? What is the weight of the bushels of wheat A will contain? B? C? D? E? F? G? H?

120-127. How many iron balls, three inches in diameter, can be piled in each room? (The solid inches in each ball will be $\frac{1}{8}$ of radius into area of surface; the area of surface is 4 times the area of a circle with same radius.) Neglect the space between the balls and walls. That is, suppose there is 2 inches between the ball and the wall. Do not have a ball and a fractional part of another ball.

PAGES OR PROGRESS.—A tabular view of course in reading and spelling in the Omaha public schools is before us. In this the "A" class of the First Grade takes one to fifteen pages; the "B" class fifteen to fifty-nine pages; the "C" class fifty-nine to ninety pages. In the second grade the "A" class has a Second Reader, and takes from one to fifty-five pages; the "B" class from fifty-five to 110; the "C" goes through. This fetches things to a fine point, altogether too fine. It is a plan that will make earnest teachers into machines.

Things to Tell the Scholars.

(PREPARED FOR THE N. Y. SCHOOL JOURNAL.)

THE POTATO.—The common potato is generally called a root, but many things which commonly pass for roots are not really roots at all. Common potatoes are tubers or tuberous parts of stems, while sweet potatoes are roots, like those of the Dahlia. The potato plant has three principal forms of branches, those that bear ordinary leaves expanded in the air, to digest what they gather from it and what the roots gather from the soil, and convert it into nourishment.

2. After a while a second set of branches at the summit of the plant bear flowers, which form fruit and seed out of a portion of the nourishment which the leaves have prepared. 3. But a larger part of this nourishment while in a liquid state is carried down the stem into a third sort of branches, underground and accumulated in the form of starch at their extremities, which become tubers or deposits of prepared solid food.

THE SWEET POTATO is botanically an entirely different plant from the common potato and requires a much milder climate. It sends out many trailing stocks extending six or eight feet in different directions, and putting forth at each point roots which in a favorable climate grow to be very large; so that from one plant forty or fifty large roots are produced. The leaves are angular, standing on long stems; the flowers are purple. In its native climate, it multiplies almost spontaneously, for if the branches of roots that have been pulled up are suffered to remain on the ground, and a shower of rain fall soon after, they will at once begin to grow again.

THE YAM is a product of a tropical or quite warm region. It is cultivated much like the common potato which it resembles in taste. There are two varieties growing from climbing plants with tender stems from eighteen to twenty feet in length. The root of one kind are flat and spread out like fingers, about a foot in length, white within and on the outside of a dark brown color.

Those of the other kind are still larger, being often three feet in length and weighing thirty pounds. The Yam is a native of Southern Asia and is supposed to have been transplanted to the West Indies. They are now very extensively cultivated in Africa, Asia and America as their large, nutritious roots amply reward the labor required to raise them.

PLANTS STORE UP FOOD.—It is curious to see the laborious efforts of plants; they fill store-houses with food. Take the potato. The supply in the roots enables them to shoot with greater vigor at the beginning and to produce a greater amount of vegetation than the seedling plant could do in the same space of time. Taking advantage of this, man has transported the potato from the cool Andes or South America to other cool climates and makes it yield him a copious supply of food, especially in countries where the season is too short, or the summer's heat too little for profitably cultivating the principal grain plants. And so also, man has copied nature's way of storing the plant's supply of food under ground in winter, and preserves his potatoes in some places by burying them in a pit in the ground, where they lie secure from the frost.

THE BRITISH QUEEN.—The Queen alone can create a peer, baronet, or knight, and confer privileges on private persons. She alone can erect corporations, and raise and regulate fleets and armies. She is the head of the Church; she convenes and dissolves all ecclesiastical synods and convocations, and nominates to vacant bishoprics and other Church offices. She sends ambassadors to foreign States, receives ambassadors at home, makes treaties and alliances, and declares war and peace, though her power in these respects also is in a large degree limited by the power of Parliament to enact or reject such laws as may be necessary to make it effective. As is well known, the Queen appoints her own advisers, irrespective of the approval of Parliament, and though popularly the Ministry is supposed to possess the whole executive power, no important measure is presented by them to the consideration of Parliament through the channel of the Ministry, and Parliament may originate and pass acts at its pleasure, subject to the constitutional right of the Queen to nullify them by her veto. The Queen can convene Parliament and terminate its sessions at will. There have been but two instances in which the Lords and Commons have met by their authority, namely, previous to the restoration of Charles II., and at the Revolution of 1688.

A BIG GUN.—For several years experiments have been

in progress in New York for the purpose of making a cannon on a new principle which shall excel any yet made. It is made to contain several charges of powder in "pockets" along the side, which explode in succession as the ball passes them, and gives it an accelerated motion without the danger of bursting the gun by a large charge ignited at once. The making of the patterns for the Lyman-Haskell accelerating or multi-charge gun, at the Scott foundry of the Reading Iron Works, was begun recently. The gun will be twenty-five feet long and have a bore six inches in diameter. Along the bore four pockets will be located, in each of which a charge of powder will be placed, with the view of accelerating the speed of the ball after it leaves the chamber of the gun and during its progress through the bore. Experts have expressed the opinion that the gun will throw a ball the distance of ten to twelve miles, whereas five miles is a good range for the best cannon. The charge of powder will be 130 pounds, and the weight of the shot 150 pounds. It is calculated that a shot from the gun will penetrate through two feet of solid wrought iron.

MAGNETIC PROPERTY OF METEORIC IRON.—J. Lawrence Smith, in examining meteoric iron from Brazil, found that small fragments, weighing 0.1 to 0.2 gram were very weakly affected by a magnet; but on being flattened on a piece of steel with a steel hammer they became very sensitive to it. What is still more surprising is that when heated red-hot the particles were made to be still more easily attracted than by flattening. The meteoric iron contained 34 per cent. of nickel and 66 of iron.

EFFECTS OF GREAT COLD UPON MAGNETISM.—It has long been known that heat possesses the power of destroying magnetism in metals, cobalt excepted. An investigation of the effect of cold upon the magnetic condition of steel is now in progress in the physical laboratory of Harvard University. The preliminary experiments show that a bar of steel, magnetized at 20° C. to saturation, when subjected to a temperature of -60° C. lost two thirds of its magnetism. After twenty-four hours' exposure to the temperature at which it had been magnetized, its magnetic condition was fifty per cent. of its original state.

THE INTERIOR SEA IN AFRICA.—We have several times referred to the French ideas, that if a canal were cut from the Mediterranean to the deserts of Tunis and Algeria, the latter could be converted into navigable seas. Many persons, as we have stated, believe that the evaporation in that latitude would be so rapid that the sea would soon become saturated with salt, and ultimately merely a bed of salt. Commandant Roudaire, who was commissioned by the French Academy to examine the subject, has finished his investigations. His conclusions are entirely favorable to the project, which would lead to the establishment of an interior sea 250 miles long, and nearly 1,000 miles in circumference.

HARDENING SMALL TOOLS.—It is said that the engravers and watchmakers of Germany harden their tools in sealing-wax. The tool is heated to whiteness and plunged into the wax, withdrawn after an instant and plunged in again, the process being repeated until the steel is too cold to enter the wax. The steel is said to become, after this process, almost as hard as a diamond, and when touched with a little oil of turpentine the tools are excellent for engraving, and also for piercing the hardest metals.

IRON PIER.—It has been deemed impracticable to build piers of sufficient length and strength to withstand the waves in so exposed situations as at Long Branch and Coney Island. But within a few years, they have been successfully constructed of iron. One has also been built at Rockaway beach and a second at Coney Island and one at the Battery. This last is 480 feet long.

The cost of the entire structure is estimated at \$70,000, and there is accommodation for 5,000 or 6,000 persons. The illumination is furnished by sixteen electric lights, which make a brilliant appearance. During the summer season concerts will be given every afternoon and evening.

DEPTH OF THE PACIFIC OCEAN.—The popular belief as to the comparative shallowness of the Pacific Ocean may have to be modified by recent sounding made with what is known as Sir William Thomson's steel wire, and which shows that along the entire coast of California a depth of 1,500 fathoms or more is reached within a distance of from twenty to seventy miles westward from the shores, the greater part of this sudden fall occurring in the last ten to fifty miles. At one hundred miles west from San Francisco the bottom is found to be 2,500 fathoms deep.

The bed of the ocean continues on a uniform depth greater than 2,500 fathoms until the Sandwich Islands are reached, the greatest depth, 3,000 fathoms, at a distance of about four hundred miles east of Honolulu. That great depth is maintained until within ninety miles of Honolulu; at fifty miles from that place the depth is 1,500 fathoms.

SCIO.—Scio (or Chio) the island in the Grecian archipelago which has been visited by a terribly destructive earthquake, involving the loss of several thousand lives, has an area of four hundred square miles, and is separated from the coast of Asia Minor by a strait seven miles wide. Its civilization and fame are as old as the mythical period of Greek history. Among the seven cities that claim the honor of being the birthplace of Homer, Scio, the capital of the island, was one. When Pand died and the oracles of Dodona became silent; when the curtain fell on the strange, pathetic, beautiful and romantic story of the old days of pagan mythology, the spirit of life and music that filled the days of Scio with beauty seemed to die and pass away with the departure of her gods.

The bread fruit tree is distributed generally among the Friendly Society and the Caroline Islands. The tree is beautiful as well as useful, and rises to the height of forty feet. The fruit is green, heart-shaped, about nine inches long and equaling a large melon in size. When toasted it is soft, tender and white, resembling the crumb of a loaf, but it must be eaten new or it becomes hard. Such is the abundance of the fruit that whole tribes subsist on this bread or fruit entirely.

An idea of the economical value of the study of the habits of insects is given in the estimate of the Editors of the *American Naturalist*, that the average annual loss to the nation from the attacks of injurious plants and insects and other animals is at least \$300,000,000. Within a period of four years a few of the Western States suffered a loss of \$200,000,000 by the attack of the Rocky Mountain locust. The State of Illinois lost in one year (1864) \$73,000,000 by the chinch bug. The annual average loss to the cotton crop is estimated at not less than \$15,000,000 or \$20,000,000. There are between fifty and a hundred thousand species of insects in the land, nearly all of which may have a more or less direct bearing on the fate of some valuable production.

Mr. J. Q. A. Ward has been commissioned to make a statue to commemorate the discovery of North America by Leif, the Norseman, which will be placed in front of the Boston Art Museum. It will be of bronze, eight feet high, and will represent a youthful, manly figure, having the head covered with a horse-helmet, from under which the falling locks of the hero descend to the shoulders. The body will be clothed in a shirt of mail, a double handed sword will rest against the thigh and legs, and the attitude will express the triumphant surprise with which Leif looks about him on the shores of the new world.

THE KINDERGARTEN SYSTEM.—Amongst those interested in the education of children, there are probably not two opinions as to the merits of this system, which is gradually becoming known and appreciated in this country. There is, however, a practical difficulty in its application. The education of a child should begin from the moment it takes notice and for this purpose it is, of course, necessary that those who have charge of the infant should possess the requisite knowledge. When we reflect upon the position of the nurse in regard to our children, the way which she exercises over them for many hours in the day and night, we must feel how little is ordinarily known of the competence of those we employ for so responsible a charge. It is not so much the willingness of the nurse to do right that is in question, as her knowledge of the principles upon which the early education of a child should be conducted. It is not so long since any old woman, who was too decrepit to do anything else for her living was considered to possess in perfection the requisites for a sick nurse. The art of cooking was apparently supposed to be inborn in individuals who aspired to the culinary department of domestic service. A tradesman who had failed in his business was as certain to set up a school as a military man on quitting his profession took to the wine trade. And so, even at the present day, any woman who declares her proficiency is supposed to be endowed with the power of directing the education of a child, the right conduct of which will probably have more influence upon its future happiness than any other circumstance, except the qualities which it possesses by inheritance. It is time that something was done to arrest the present anomalous state of things.—*Lancet*

EDUCATIONAL NOTES

ELSEWHERE.

CORNELL UNIVERSITY.—For the convenience of those residing at a distance from Ithaca, examinations for admission will be held on Tuesday, June 14, at 9 A.M., and continue three days at the following places; Boston, at the Chauncey Hall School, 259 Boylston street; Cleveland, at Board of Education rooms Euclid avenue; Chicago, at West Denison High School; New York, at Hall of Board of Education, at 146 Grand street; Washington, at Franklin School Building. A fee of five dollars will be charged for admission to these examinations; but this sum will be placed to the credit of successful candidates upon the first term bill after entering the university.

TENNESSEE.—Tennessee is making a wide stride at this time in the right direction. We have depended on teachers' institutes for several years, but they are being supplanted by normal schools or normal institutes. Last year there was held in nearly every county a normal school, continuing from four to six weeks. Such advancement is quite discouraging to worthless teachers. It disturbs their quiet admirably. All teachers are being forced either to put their shoulders to the wheel and walk up manfully to the work or retire to the shade of private life. The dead teachers (the "come day, go day, God send pay-day" teachers) and all other kinds of teachers except those of the right grit must soon bid a long farewell to the school-room. Their days are nearly numbered.

The latest statistics show 41,678,000 school-children in the world, so far as the census-takers were enabled to ascertain. These have about 1,000,000 teachers. First in proportion to population comes the United States, with 9,373,195 pupils and 271,144 teachers. Both here and in France the school-children form one-fifth of the population. Prussia, with 4,007,776 pupils and 57,936 teachers, takes the third place. Next come England and Wales, where, as in Prussia, school children are one-sixth of the population. Austria then flies into line. In Japan there are 2,162,962 school children, but the total population is not known.

STATE EXAMINATIONS.—The Superintendent of Public Instruction of this State has ordered that examinations of applicants for State certificates be held, commencing on Tuesday, the 12th day of July, 1881, at two o'clock P.M., at the High School buildings in Albany, Brooklyn, Buffalo, Elmira, Plattsburgh, Syracuse and Watertown. The examinations will, as heretofore, be conducted by competent persons, the results reported to him, and such of the candidates as have given satisfactory evidence of their learning, ability and good character will receive certificates qualifying them to teach in any of the public schools of the State without further examination.

Candidates must be present at the beginning of the examination, produce testimonials of character, and must have had at least three years' experience as teachers. They must pass a thorough examination in the following named branches: Reading, spelling, writing, grammar and analysis, composition, geography, outlines of American history, arithmetic, elementary Algebra and plane geometry. (In place of geometry, candidates may offer themselves, if they choose, for examination in Latin as far as three books of Caesar.) They will also be expected to have a general knowledge of bookkeeping, rhetoric, the natural sciences, linear and perspective drawing, general history, general literature, methods, school economy, civil government and school law. The examinations will be open to candidates residing in any part of the State and to such residents of other States as declare it to be their intention to teach in this State.

The Kindergarten.

The closing exercises of the ninth annual course of the New York Seminary for the Training of Kindergarten Teachers, with model Kindergarten and elementary classes, of Prof. John Kraus and Mrs. Maria Kraus-Boelte, took place last Wednesday afternoon in the hall of the Institute at 7 East Twenty-second street. The four walls of the large hall, which serves also for a play-room, and is also the work-room of division I. of the Kindergarten and division III. of the elementary class, were covered from the floor to the ceiling with the work from Froebel's means of occupations, while the different gifts were arranged on several tables, showing to what degree the children from the Kindergarten advanced (and elementary classes can be led. A large audience was in attendance,

consisting of the friends of the graduates, parents of the kindergarten children and friends of the kindergarten cause. Brief essays were read by a number of the members of the class, which showed a clear conception of Froebel's pedagogic aim in his several gifts and occupations, which were interspersed with pieces of music and choruses. Prof. and Mrs. Kraus in their short addresses called especial attention to the fact that too much is done in our American kindergartens with perfected patterns and elaborated materials; that they, in their training school, do all in their power to teach the ladies of the training class how to vary the exercises, encourage children to devise patterns, and use, modify and make up the material for themselves, each in his own way; that it cannot too often be repeated that the significance of Froebel's system consists in the arranging of the gifts and occupations as to encourage and enable the child to transform and recombine the material, thus strengthening by exercise his bodily and mental faculties; that individuality is thus developed; that Froebel gives explanations how to construct their games; that to know them all is quite a study; to apply them well, an art; to understand their full significance, a science; that no one can master all these details without deep study, much observation, and thoughtful practice, and that, when mastered, the kindergarten deserves a rank and remuneration not now accorded to her; that until now nearly two hundred ladies have availed themselves of the opportunities in training which this seminary has offered, and hold its diploma, and among them have been teachers from normal schools, principals of ladies' high schools and ladies of culture from different parts of the country, even some mothers with their daughters; also a number of sisters of charity; that all, however, have to go through the entire course; even those ladies who study merely for their own accomplishment; that some of the latter now work among the poor in charity kindergartens; that the class for 1880-81 was opened on the 1st of October with thirty ladies, of which seventeen are graduating, nine have determined to take a second year's course and four had been compelled during the year, by circumstances, sickness and death in their families, to give up their work, but hope to be able to complete it in the next course. After a hearty "Good-bye Song" Prof. Kraus distributed diplomas to the following ladies: Lizzie Lincoln, Boston; Lillie Esselborn, Cincinnati, O.; Anna Trotz, Belleville, Ill.; Laura Cohen, Colma, Germany; Phebe Thomas, San Paula, Brazil; Nellie Haviland, Anna Marshall, Brooklyn, N. Y.; Thekla Wagner, Orilla Erskine, Lina Kelley, Emma Rochefort, New York; Anna Morse, Jamestown, N. Y.; Huldah Palmer, Orange, Lillie Wetmore, Englewood, N.J., and sisters Berchman and Clarissa, teachers from the Academy of the Holy Cross, New York.

Columbia College.

The Annual commencement exercises took place June 8th. First came a Greek salutatory oration by Edward Stabler Field, and a Latin poem by Archibald Dunning. E. K. Dunham, of the School of Mines, followed with an oration on the "Correlation of the Sciences;" Erastus Titus Roberts with one on the "Advantages of a Collegiate education," while Thomas B. Stearns on the importance of our Mineral Resources" and Frank Wallace Arnold on the "True Republic."

HONOR MEN OF THE CLASS OF '81.

First honor class—Edward Stabler Field, William Archibald Dunning and Erastus Titus Roberts.

Second Honor Class—Frank Wallace Arnold, James Chidester Egbert, Harry Thurston Peck, James Heard, Jr.; Eugene Talman Stuart and Reginald Hall Sayre.

Third Honor Class—James Thurston Horn, Lemuel Whitaker, William Walter, Charles Mandred Lum, Edward Riggs, Franklin Bryant Torrey, Herbert Sewall Kimball, Bertrand Clover, Jr., Daniel Lewis Gibbens, Paul Ernest Tiemann, Samuel Stewart Fowler, Van Meter Stilwell, Richard Amerman Anthony, Henry Manchester Ladd, Louis Cunningham, Lucius Hart Beers, James Henry Montgomery, Albert Andrade Cohen and Charles Smith Collins.

FELLOWSHIP.

Harry Thurston Peck, Fellow in Letters.

SCHOLARSHIPS.

Junior Class—In Greek, Nicholas Evartson Croeby.

In Latin—Joseph Edwin Baker.

In Mechanics—Nicholas Murray Butler.

In Logic and English Literature—Nicholas Murray Butler.

Sophomore Class—In Greek, Abraham Valentine Williams Jackson.

In Latin—Abraham Valentine Williams Jackson.

In Mathematics—Michael Popin.

In Chemistry—Augustus Dickerson Baker.

In History—Edmund Benjamin.

Freshman Class—In Greek—Nelson Glenn McCrea.

In Latin—Nelson Glenn McCrea.

In Mathematics—Walter Gillette Bates.

In Rhetoric—Edward Mills Perry.

The fellowship is worth \$300 a year and each of the scholarships \$100 a year.

The Chanler Historical Prize of \$50 was awarded to Harry Thurston Peck and the Alumni Prize of \$50, "for the most faithful and deserving student of the graduating class," to James Chichester Egbert.

BACHELORS OF ART.

The following graduates received diplomas as Bachelors of Art:

Rufus Green Angell, Richard Amerman Anthony, Frank Wallace Arnold, John Bates, Lucius Hart Beers, Arthur Winslow Cabot, Bertrand Clover, Jr., Albert Andrade Cohen, Charles Smith Collins, Richard Combes, Louis Cunningham, William Curtis Denmore, William Archibald Dunning, James Chidester Egbert, Jr., Edward Stabler Field, Samuel Stewart Fowler, George Frederic Garr, Daniel Lewis Gibbens, James Heard, Jr., James Thurston Horn, Lucius Wales Hotchkiss, Herbert Sewall Kimball, Henry Manchester Ladd, Charles Mandred Lum, Howard McDougall, Henry Louis Mills, Jr., James Henry Montgomery, Hugo Robert Muller, Robert Benjamin Parker, Harry Thurston Peck, Thomas Daniel Rambant, Frederick William Reid, Edward Riggs, Erastus Titus Roberts, Reginald Hall Sayre, Harry Ashton Smedberg, Job Lewis Smith, Jr., Van Meter Stilwell, Ellerson Stout, Eugene Talman Stuart, George Henry Taylor, Paul Ernest Tiemann, Franklin Bryant Torrey, William Walter, Lemuel Whitaker, William Faber Wilcoxson and Alexander Florian Henriques, sp. gr.

President Barnard addressed the class. He said: If they could not impress themselves upon society, politics and business, then indeed a good education was worthless. It was true that in rare cases genius and self-culture lifted themselves above the want of a good education; but, other things being equal, knowledge would always tell. The inequalities in politics, material wealth and other things might be swept away by democratic institutions, but there was an aristocracy of cultivated intellects that would always assert itself. If that aristocratic element did not exercise the power in society and politics, the use of which was not only its prerogative but its responsibility, it was solely because it lacked the force of organization. And yet it was the duty of all men belonging to that class to organize and remedy certain conditions of the government which should bring the blush of shame to the cheek of every true patriot. The present practices of the government were in some respects utterly at variance with the spirit of the constitution.

The power which belonged to the people and was inherent in them had gradually been wrested from them and was now simply a bone of contention between two corrupt oligarchies.

He appealed to the graduates to devote themselves in the activity of their manhood to the eradication of the evil. A union of all good men for the sake of good government must bring about good government, and, should they even fail, they would have at least the satisfaction of having performed their duty.

DEGREE OF ENGINEER OF MINES.

Charles Popham Bleeker, Edward Renshaw Bush, Philip Edward Chazal, A. B.; Howard Van Fleet Furman, Charles Breck Judd, Willard Parker Little, Michael Joseph O'Connor, George Sharp Raymer, A. B.; Arthur Carr Roberts, Thomas Beale Stearns, William Henry Smeaton, C. E.; Alfred Ernest Swain and Edgar Granger Tuttle; also Alfred Daniel Churchill, M. S., Ph. B.

DEGREE OF CIVIL ENGINEER.

Charles Gordon Curtis, Edward Morehouse Douglas, William Tudor Griswold, Daniel James Leary, Walter Montfort Minerole, Chandler Danna Starr, William Fish Williams and Herbert M. Wilson.

DEGREE OF BACHELOR OF PHILOSOPHY.

Frederick Theodor Aschman, Robert Belton, Victor Manuel Braschi, Albert Ladd Colby, Edward Kellogg Dunham, Arthur Henry Elliott, William Elliott, Frederick Adolph Hemmer, Jr.; James Haviland Merritt, Percy Neymann, Thomas Devlin O'Connor, Lucius Pitkin

Charles Pike Sawyer, William Waldemar Share, Alvan Howard Van Sinderen, Herman Theodor Vulte, Ferdinand J. G. Weichmann; also, Alfred Lockwood Beebe, Joseph Godley Mattison, Theodore Fonnele.

The following named gentlemen received diplomas as Bachelors of Philosophy, being graduates of the School of Political Science:

Nathan Bijur, Richard Vendome Boyd, David Augustus Clarkson, William Forster, Felix Benedict Herzog, Edward Hinman, Ernest Thompson, sp. gr; Charles Adams Moran, George Eugene Vail, Stephen Guion Williams.

The degree of Doctor of Philosophy was conferred on Nathaniel Lord Britton and Sylvanus Albert Reed, A. B. E. M., and that of Master of Arts on Ralph Wood Kenyon, of the class of 1878, and Mornay Williams of the same class.

LETTERS.

I find map drawing is a great help to memory in the study of geography. At the recitation, I require the map to be reproduced on the board. Rivers, mountains, cities, etc., are placed on the map as I pronounce them. This, with all outside information which can be obtained, constitutes a geography lesson. Before each reading lesson is read the difficult words are written on the board, then pronounced by the class. Thus the selection to be read is understood and there is no hesitancy in reading it. These words also form the spelling lesson. The pupils write on slates sentences of their own composition in which these words are used. Thus every new word is thoroughly understood; not only this, but thought is required on the part of the pupils, which is one of the chief results at which I aim. I will relate an incident which occurred in my school one afternoon and which gave me some satisfaction in regard to my work. After giving the school a short lecture on the subject of map, to which the closest attention was given, I let the little ones go out to play. Just as the door closed I overheard one of them saying, "I don't believe steam is water." Then followed quite an animated discussion, but of course I only heard the first few words. This showed that I had set him to thinking. He was not willing to take as a fact anything which seemed to him so improbable without stronger proof than simply because some one said so. If we can only awaken in our pupils such an interest in everything around them that they will observe and investigate for themselves, our work will not have been in vain, and it may be said of us, "Their works do follow them." When I first began reading the Quincy methods I thought, "How much better it would be if I only knew how." I determined at once to avail myself of every means to learn to teach in a natural way. I found the TEACHERS' INSTITUTE an invaluable aid. I am now trying to teach by those methods which once seemed so vague and almost incomprehensible, even when I first threw aside the old A, B, C method. But as I studied child nature and principles of teaching and applied that knowledge, the real way has gradually become more clear and I am encouraged. My work is much better this year than last. When I begin to think teaching dull business and to feel that my pupils are not improving as fast as they ought, I need only turn to the TEACHERS' INSTITUTE to gain fresh inspiration. Then I can go back to my work with a new zeal, feeling that this is a grand work which consists in moulding the plastic minds and hearts of the children of our land into those of noble men and women. B.

STATE NORMAL SCHOOL, GENESKO, N. Y.
June 3rd, 1881.

Dear Kellogg: Your work on "School Management" contains many things of great importance. It is not a treatise on the philosophy of education—it does not pretend to be,—it would not be suited to the majority of our teachers if it were; but it is better, for it is a practical treatise on what every teacher must know if successful. Our young teachers need guidance. This book directs them and they need not go into the school-room ignorant of the first principles of school government. In your plain, common-sense language and by your affectionate spirit, you have found the only way into both the heads and hearts of your readers. I am confident your book will live many years and be read by thousands of teachers.

Yours sincerely, JEROME ALLEN,
President New York State Teachers' Association.

As regards "School Management" I must say that it is a perfect little gem. It could have emanated only from a good source. W. P. J.

EDUCATIONAL MISCELLANY.

"Fanatical Belief" in the Virtue of Examinations.

Examination has two distinct functions. One is disciplinary, a mere means of compelling attention, and perseverance in a course of study. The other is educational, a process of gathering up the facts that have been acquired, presenting them in their connections, and thus developing the subject to a degree not otherwise so easily attainable.

This educational part should be played all through a study as well as at its close, and played so as to make the student more and more confident of his powers. It is the only part to be taken either with dignity on its own side or to the lasting benefit of education. The other is the part of a watch-dog instead of a teacher.

It is only by using examinations helpfully that we can make them helpful. Adapted as they should be to what precedes, and what is to follow after them, too moderate to injure health of mind or body, true to their own functions, they are among the most serviceable of our agencies. Like everything else that is good, like exercise, like study, like enthusiasm they can be perverted and turned into evil. Just as any other burdens, these may bend the shoulders and break the spirit.

The preparation and correction of examination papers in schools absorbs a large amount of time and force, that might be better used. While it is wise to test instruction, it is unwise to make as much of testing as of instructing.

In modulating the requirements of our educational system, we shall find opportunity of improving the moral tone of the schools. Half the temptation to dishonesty, to which too many children are constantly yielding, would disappear with the strain to which I have been objecting.

Other good qualities teach's truthfulness would have a better chance of cultivation. Courage, vigor, thoroughness in detail, especially in that which is comparatively unobtrusive, highmindedness—these are results of infinitely greater value than the highest percentages. They cannot grow—indeed they cannot live under the driving wind that has been allowed to sweep through our schools.

There is an opposite extreme to be guarded against. It is keeping back pupils when fully prepared to advance.

This does not teach patience, but exhausts it; does not kindle ardor, but quenches it.

There is something absolutely wrong in shutting up a pupil between the pages of a book, or the limits of any exercise, long after his work is done, merely because the work of his fellow-pupils is not done. If we drag him down to their level, he can do nothing to lift them a hair's breadth to his; his, indeed, ceases to be his, and the brightness he brought with him into the school may be extinguished perhaps for life. Our promotions should not be merely bolts drawn against slower or idler children, but swinging gates through which the quick and earnest can go forth rejoicing.—SAMUEL ELLIOT.

Industrial Education.

In 1877-8 an experiment was made in Boston, under the auspices of the Industrial Education Society, "to give boys that intimacy with tools and that encouragement to the inborn inclination to handicraft, and that guidance in its use, for want of which so many young men now drift into overcrowded and uncongenial occupations, or lapse into idleness or vice." It was successful. There were more applications than the school could receive. The city gave the use of one of its ward-rooms to this "whittling school," three gentlemen, one a photographer, two of them practical wood carvers, gratuitously gave their services, on Tuesday and Friday evenings of each week, as superintendents and directors of the work.

The outfit was: Thirty-two firm work benches for thirty-two boys, giving to each a space for his work four feet in length and two and a half in width. Each bench had a vise with common wooden jaws and an iron screw; a drawer with lock and key, in which the tools were kept, and a gas-burner, with a movable arm. Each boy was provided with a large work-apron of cotton drilling. All the benches, tools and aprons were numbered, and each boy made accountable for their care and keeping.

The following bench regulations were pasted on each bench:

1. Be at bench at seven o'clock, according to your number.
2. Do not leave the bench without permission.
3. Give all your attention to your own work.

4. Make no unnecessary noise, such as whistling, etc.
5. Keep your bench neat, and do not deface it in any way.
6. After work place all your tools and other equipments in your drawer, according to your number, and return the key to the teacher.
7. Every boy will be held accountable for the tools placed at his bench for his use.

The object of this school was not to make carpenters, but to give boys a familiar acquaintance with certain manipulations which would be equally useful in many different trades. Instruction, not construction, was the purpose of the school.

The experiment satisfied the association and all persons interested, that through the adoption of the Russian system, manual education may be made an efficient part of public instruction. The essential part of that system is that the students are taught in classes, rendering it unnecessary to give any individual instruction, except in rare cases.

Four specialists, employed by the Boston School Association, have prepared a text which precisely sets forth the successive steps in a series of primary lessons in the use of wood working hand tools. They contain exactly the information required in order that these arts may be brought as completely within reach of the ordinary educational methods as reading or writing.

Eleven lessons, of two hours each, embrace the following topics:

1. Use of the cross-cut saw.
2. Hammer; striking square blows.
3. Splitting saw; sawing to line.
4. Jack-plane; smoothing rough surfaces.
5. Hammer; driving nails vertically.
6. Splitting saw; sawing at exact angles to upper surface.
7. Jack-plane; setting the plane iron.
8. Hammer; driving nails horizontally.
9. Bit and brace; boring in exact positions.
10. Mallet and chisel; mortising.
11. Jack-plane; producing surfaces which intersect at exact angles.

Auxiliary exercises, in laying out the work by measuring and lining, are incidental to all the lessons.

For the SCHOOL JOURNAL.

Education of Girls.

By JEROME ALLEN.

It is very important to decide what kind of an education our girls shall receive. If the answer is, "Just like the boys," then the question comes, "How shall we educate the boys?" Discipline in the art of thinking is at the foundation of all correct mental training, and it makes no difference where or how this important possession is obtained. It must be had. If a log school house can give a girl the power of using her mind as she ought, then that log college, with no diploma, is infinitely better than a showy graduation and nothing more. Some parents have learned and others are beginning to find out that they cannot buy either capacity or education. Honest, common sense business men have long ago decided to place little reliance upon illuminated certificates of either mental or moral character. What a girl is, is worth a thousand fold more than what she is recommended to be. A folio of commendatory letters could not keep a man out of prison after being convicted of forgery. The work of life soon tries all sorts of educations, of what sort they are.

A girl needs to be fitted in her body, mind and soul for her work. There are some things she may not have, some things she may have, and some things she must have. Mental power stands first. This means the power of thinking out a subject to its logical conclusion. A girl who is a twining vine around any support may get through life with tolerable credit if her husband happens to be more than a flexible stick, but woe to her and woe to him if both are unsupported sweet-pea vines. They will be doomed to trail near the ground and waste a vast amount of unperceived sweetness. Thoroughly made automatic, presentable dolls are very expensive and very useless. They may play their parts with wonderful precision, but their heads are empty and their hearts wanting. The ideal fashionable girl has been gotten up for show physically and mentally. She does not disappoint her manufacturers but brings a good price in the fashionable market. Now a woman may have a head and a heart also. It doesn't help her heart to take away her brains. What she wants is a loving heart, with decision, capacity and intelligence. She

may marry or not marry, just as she pleases; she will be useful and helpful and independent anywhere. Her property can not burn up or run away. She owns property her husband's creditors can not attach. Her legal titles are undisputed. The dashing girl who comes from school, with abundant frizzes and meager Latin, followed by a slim student with confident airs and pedantic manners, soon make a well mated pair. Their works soon follow them. The ultimate object of a young woman's education is usefulness. What is she good for? Answer that question, and her life work is measured. She should not consider her *ultima thule*, marriage. There are honorable occupations for unmarried women and they are constantly increasing in number. Only those who are able to get along without a husband are fitted to live properly with one. The education of a girl should fit her to do some useful thing well, with entire indifference to an eligible marriage. Let her go forward, lovingly, nobly, independently and when somebody meets her just as noble and independent as she is, they may join, and the result will be a great addition to the world's stock in trade.

The worst sort of education our girls can receive is that which makes them pseudo-men. Some women would be men, but alas! the ignominious failure. "Strong-minded" has come to be a word of reproach, synonymous with feminine coats and pantaloon. All real glory of every sort has departed from such creatures. If a girl has been educated as a girl and not as a boy, she will be a woman and not a man, and woman fully developed in mind, heart, soul and body, is God's noblest work.

Silk Culture.

Efforts are being made in Louisiana to attract to that State the silk growers of Provence, whose prospect in France have been blighted by plagues affecting vines and silk worms. Specially promising are the opportunities held out in connection with silk growing. One of the better known silk growers of Louisiana, Mr. L. S. Crezier, says that not only are the silk worms of that State entirely free from disease, but the mulberry grows so rapidly that, instead of waiting five years for the first crop of cocoons, the careful planter can begin to feed worms the first year after planting.

The prospects for this spring's hatching are said to be very encouraging. The frost of the past winter did not hurt the trees, and the worms are doing nicely. Some are nearing the last month, and others are yet not hatched. All are healthy. One good tree will feed enough worms to produce seven pounds of silk, and ten pounds of leaves will produce one pound of silk. One ounce of good eggs will produce enough worms to eat 1,200 pounds of leaves. They cost from 50 cents to \$6 per ounce. Thus at \$5 per pound for silk, the allowance for labor and expense is very large. The secrets of silk culture are pure air, warmth, dryness and proper food. That the climate is warm enough in Louisiana is proved by the fact that a lot of 1,500 silk worm eggs were wintered at the outside temperature by Mrs. Leyward, and are now hatched. The mulberry tree flourishes, and the workers are careful. When it is wet they keep a fire in the house of the silk worms, and dry the leaves on the branches cut from the tree before they spread them on the worms. They avoid the dew, and it is a rule to have two meals of leaves in advance. The State, it is believed, has great advantages over European countries in the matter of raising the mulberry.

The Pennsylvania House of Representatives lately gave a hearing to the Women's Silk Culture Association touching the aims of the association. Mrs. John Lucas, president of the association, said that its main object was to instruct the women and children of the working classes in the management of silk worms, and the proper treatment of the cocoons for the production of silk, by means of which they would be provided with light, agreeable and remunerative employment. The advantages presented by this country for silk culture were enlarged upon, as well as the great benefit that would accrue to all classes of society by the proper encouragement and development of the silk industry. Several other lady officers of the association discussed the purposes, methods and prospects of silk culture, hoping to give the legislators such a favorable impression of the operation of the society as to secure a small appropriation for the enlargement of the work. At the conclusion of the addresses the members examined the specimens of cocoons which the ladies had with them, one case of which was raised by Mrs. Taylor, mother of the late Bayard Taylor, who is eighty years old.—*Scientific American*.

The Teachers of Antoninus.

The celebrated Roman emperor, M. Aurelius Antoninus, (died A. D. 180) was a philosopher and a man of remarkable character for rectitude and true dignity. He left a sort of diary containing his reflections and opinions relating to the conduct of life and the rule of the universe, most of them written in the midst of his military campaigns, like the commentaries of Caesar. In this diary he tells what he learned from his several teachers. In the whole, there is not a word of what he learned of science or art, or from books, but what he learned from the men themselves what was in them.

How many of our modern teachers would like to be judged by the same standard? How many will be remembered by grateful pupils for what lessons they have taught in their lives? It is no less true now than in the days of Antoninus, that it is not what the teacher says which influences the pupil, but what he is.

He says: 1. "From my grandfather Verus, I learned good morals and the government of my temper.

2. From the reputation and remembrance of my father, modesty and a manly character.

3. From my mother, piety and beneficence, and abstinence, not only from evil deeds, but even from evil thoughts; and, further, simplicity in my way of living, far removed from the habits of the rich.

4. From my great-grandfather, not to have frequented public schools, and to have had good teachers at home, and to know that on such things a man should spend liberally.

5. From my governor, to be neither of the green nor of the blue party at the games in the circus: from him, too, I learned endurance of labor, and to want little, and to work with my own hands, and not to meddle with other people's affairs, and not to be ready to listen to slander.

6. From Diognetus, not to busy myself about trifling things.

7. From Rusticus, I received the impression that my character required improvement and discipline: and from him I learned not to be led astray to sophistic emulation, nor to showing myself off as a man who practices much discipline, or does benevolent acts in order to make a display; and to abstain from rhetoric, and poetry and fine writing; and to write my letters with simplicity, and with respect to those who have offended me by words, or done me wrong, to be easily disposed to be pacified and reconciled, as soon as they have shown a readiness to be reconciled: and to read carefully, and not to be satisfied with a superficial understanding of a book; not hastily to give my assent to those who talk overmuch; and I am indebted to him for being acquainted with the discourses of Epictetus, which he communicated to me out of his own collection.

8. From Apollonius, I learned freedom of will and undeviating steadiness of purpose; and to look to nothing else, not even for a moment except to reason; and to be always the same, in sharp pains on the occasion of the loss of a child, and in long illness; and to see clearly in a living example that the same man can be both most resolute and yielding, and not peevish in giving his instruction; and from him I learned how to receive from friends what are esteemed favors, without being either humbled by them or letting them pass unnoticed.

9. From Sextus, a benevolent disposition, and the example of a family governed in a fatherly manner, and the idea of living conformably to nature; and gravity without affectation, and to look carefully after the interests of friends, and to tolerate ignorant persons and those who form opinions without consideration.

10. From Alexander, the grammarian, to refrain from fault-finding, and not in a reproachful way to chide those who uttered any barbarous or solecistic or strange sounding expression; but dexterously to introduce the very expression which ought to have been used, and in the way of answer or giving confirmation, or joining in an inquiry about the thing itself, not about the word, or by some other fit suggestion.

11. From Fronto, I learned to observe what envy, and duplicity, and hypocrisy are in a tyrant, and that generally those among us who are called Patricians are rather deficient in paternal affection.

12. From Alexander, the Platonic, not frequently nor without necessity to say to any one, or to write in a letter, that I have no leisure; nor continually to excuse the neglect of duties required by our relation to those with whom we live, by alleging urgent occupations.

13. From Catulus, not to be indifferent when a friend

finds fault, even if he should find fault without reason, but to try to restore him to his usual disposition; and to be ready to speak well of teachers as it is reported of Domitian and Athenodorus; and to love my children truly.

14. From my brother Severus, to love my kin and to love truth, and to love justice; and in him I observed no concealment of his opinions with respect to those whom he condemned, and that his friends had no need to conjecture what he wished or did not wish, but it was quite plain.

15. From Maximus, I learned self-government, and not to be led aside by anything; and cheerfulness in all circumstances as well as in illness; and a just admixture in the moral character of sweetness and dignity, and to do what was set before me without complaining. I observed that everybody believed that he thought as he spoke, and that in all that he did he never had any bad intention; and he never showed amazement and surprise, and was never in a hurry and never put off doing a thing, nor was perplexed nor dejected, nor did he laugh to disguise his vexation, nor, on the other hand, was he ever passionate or suspicious. He was accustomed to do acts of beneficence, and was ready to forgive, and was free from all falsehood; and he presented the appearance of a man who could not be diverted from right rather than of a man who had been improved. I observed, too, that no man could ever think that he was despised by Maximus, or ever venture to think himself a better man. Mark the perfect teacher and the honor paid him by his distinguished pupil.

11. To the gods I am indebted for having good grandfathers, good parents, a good sister, good teachers, good associates, good kinsmen and friends, nearly everything good. I thank the gods for giving me such a brother, who was able by his moral character to rouse me to vigilance over myself, and who, at the same time, pleased me by his respect and affection; that my children have not been stupid nor deformed in body; that I did not make more proficiency in rhetoric, poetry and the other studies, in which I should perhaps have been completely engaged, if I had seen that I was making progress in them.

It is remarkable for a man to be thankful that he did not learn more in his studies, but in the mind of this truly wise man, the studies themselves were of so infinitesimal value in comparison with the great moral and practical lessons derived from his instructors, that he thanks the gods that he did not learn more of them, lest he should have been so occupied with them as to neglect the great practical duties of life. Though the pupil may forget every lesson of his text-book, he will not forget the character and teachings of his instructors, be they good or bad.

The Heavens.

There will be a total eclipse of the Moon soon after midnight of the 11th. The eclipse begins here 15 minutes after midnight, is total from 17 minutes after one until 39 minutes after two, and ends at 3.41 on the morning of the 12th. As some years have passed since such an eclipse, this will be watched with considerable interest.

Venus will be at her greatest brilliancy about midnight of the 9th; she rises at that time about an hour and a half before the Sun. Venus and Saturn will be in conjunction during the night of the fifth, and during the night of the 18th, Jupiter and Venus will be about two degrees apart.

Mercury is an evening star this month, reaches its greatest eastern elongation at midnight on the 19th, and, as it will set on the 20th an hour and forty minutes after the Sun, may be visible to the naked eye for some days before and after that date.

Mercury is in Gemini, and passes into Cancer at about the middle of the month; Venus is in Aries and enters Taurus during the last week of the month; Mars is in Pisces and passes into Aries about the middle of the month; Jupiter is in Aries, and enters Taurus at the end of the month; Saturn is in Aries; Neptune is not far from Jupiter, and will be in close conjunction with it on the morning of the 19th, the interval between them being only 44 minutes; and Uranus is still in Leo, where it has been distinctly visible on moonless nights for some months. The planets are still, Uranus excepted, as related to the earth, not far apart, and not far from the Sun, and Mars is approaching the group.

The Sun enters the sign of Cancer, in the constellation of Gemini, at 2 o'clock, on the 21st, and Summer begins. On the same day the Sun attains its greatest northern declination, and the day becomes the longest of the year.

The Teacher's Profession.

If the vocation of the teacher has not commanded that high degree of respect and the remuneration which it deserves, it is mainly the fault of the teachers themselves. A majority of those engaged in teaching have made no special preparation for their work. A lawyer, physician or clergyman devotes several years to special study and preparation before he presumes to offer his professional services to the public. Should the teacher be required to show the same evidence that he is competent to do his work well and intelligently and that it is his chosen profession, he would be entitled to equal distinction and to more adequate compensations. The public is greatly at fault doubtless, by its willingness to employ unqualified teachers on the score of economy.

The *Canada School Monthly*, in a recent number, pertinently remarks that "it is increasingly common for farmers' sons to seek a calling whose chief recommendation seems to be exemption from labor. In consequence of this the market is flooded with clerks, doctors, clergymen, lawyers and teachers. In the four former cases the evil works its own remedy, the incompetent surpluses being disposed of by that beneficent law, the non-survival of the unfittest. But, in the case of teachers, there exists a class of people interested in promoting the survival of incompetent teachers in order to cheapen and underbid the competent. But the position of 'the cheap teacher' is not a pleasant one. It will cease to exist as soon as the good sense of the community awakes to the need of abolishing the condition of things which overcrowds the teaching profession with inferior members."—*Educational Notes*.

Advice to Teachers.

SUPR. GEO. R. DIXON, Ridgeway, Pa.

Educational methods are being greatly improved, and during the school year of 1881 let us all put our shoulder to the school wheel in Elk county. Much has been done, but much more may be done. I purpose to visit your schools often, giving encouragement and advice. During the present year I will write reports of each school for the county newspapers, giving the teacher's name, the attendance, condition of the school, condition of the buildings, furniture, school grounds, etc., etc. To the end that your schools may be a credit and "of good report" I respectfully suggest and urge the following hints: Establish reading circles, literary and other educational societies. Try to introduce good books and papers in the homes of the children, and thus stimulate a desire for good reading. Teach the children that which they will be likely to need when they are grown up. Teach the forms of letter-writing and the elements of composition. Have general exercises daily. Have weekly reviews and monthly examinations. Close each school term with a written examination and preserve each scholar's work for exhibition at my office and the county Institute. Study to keep the air pure in the room. Keep everything clean, and the stove should be black, not red. Cultivate a good feeling in the school and district. Do not call the parents fools and the children idiots. *Read School Journals.*

The Township System.

The township system was inaugurated in New England almost as soon as the Pilgrim Fathers landed at Plymouth, and wherever the influence of their descendants has extended the system has been adopted. In no single particular, more than this, has the government of the North differed from the South. Here there has been a radical divergence. With us the system has been cherished; there it has been ignored; here everything has centered around the township, there around the county or parish. In the South the party in power in the legislature appoints every justice of peace in the state. These elect from their number the county commissioners, and these, in turn, appoint the school committeemen and all other minor officers. The township system is unknown. The dominant party in the legislature controls everything. No system has proven so effective in educational matters, for none so immediately comes from and reaches to the people. In some of our newer states the plan has been much simplified, and most thoroughly tried. In Iowa each school district of the entire township elects, each, one trustee. All these trustees, assembled, constitute a Board. No single officer can transact any business, or make any contracts. The Board fixes the wages of each teacher in the township, equalizes the salaries,

locates and builds the school-houses, raises the proper amount of school money, and does all the business necessary to the successful management of the schools. The tax on the entire township is the same. In this way small and poor districts are helped by the larger and richer ones. It enables the township to maintain one good school of high grade, to the teacher of which a good salary can be paid the year round, and which the pupils desiring to study advanced branches can attend. The aggregate expense for the whole territory is no more than under the old independent district system, while the power for good is multiplied ten-fold. No other plan for the organization of country schools has proven half so effective, and where once tried, will never be abandoned. New York is losing each year a large per cent. of the profit that might come from her schools by not adopting the township system. The teachers of our state should thoroughly study and most earnestly labor to secure its early adoption.—*Burns' Ed. Monthly*.

Ancient Boys at School.

At seven years of age the Roman boys studied Greek and Latin grammar together. The sons of centurions went to school at five a. m., with their satchels and counting tables slung over their shoulders, and studied in school-rooms on the ground floor, where they were so well and thoroughly flogged that their howls aroused the neighbors at very unseasonable hours. Martial and other satirists spoke of their cries and blubberings as one of the chief nuisances of the early morning hours. The masters were great disciplinarians, and esteemed corporal punishment one of the chief means of inducting that precious boon, knowledge, into dull heads. The ancients believed that boys were naturally vicious and required taming. So great a teacher as Plato laid down the axiom that "A boy was the most ferocious of animals." Others, like Quintilian, protested against undue flogging. Pictures found in Herculaneum show that system of flogging was in vogue; also, that in some schools both sexes were together, although the education of girls was comparatively neglected. In the higher social circles girls were taught music and dancing and other fashionable branches, as now-a-days. Tuition was very cheap, less than a cent a day. The boys had holidays in March and December and a long vacation in the summer, from June 24 to October 19, a great part of which was spent with their parents at Roman Newport and Coney Islands. At fourteen they were put into high schools, where they studied rhetoric, poetry, and belles-lettres generally, their previous efforts having been confined to reading, writing and arithmetic, with Greek and Latin grammar and verses. The younger children were taught their letters and numerals by means of small ivory blocks, as at the present day. The pay of a teacher was thirty dollars a year, about one hundred times less than that of a ballet dancer.—*Home Journal*.

The Cost of Rum.

The schools in the United States number 141,629; teachers, 221,049; annual expense of education, \$95,402,726.

The retail liquor sellers in the United States number 166,600; cost of liquors in the states and territories in 1878, \$715,575,000.

Rum over education, \$620,172,274.

Religion—Clergy in the United States number 83,637; church members, 11,458,534; Sunday-schools, 73,045; teachers, 853,100; Sunday-school scholars, 6,514,054; total contributed for support of religion, \$57,636,495.

The retail liquor sellers in the United States number 166,000; men and women in the states who drink liquors, 18,000,000; number per annum killed by rum, 65,000.

Rum over religion, \$667,938,505.

Religion—Annual contribution, \$1.11; education—annual contribution, \$2.02; rum annual contribution, \$17.

The saloons outnumber all other kinds of business houses of any one class in the country. We pay about one-eighth as much for education as for rum, twice as much for temperance as for the support of the government, and fifteen times as much to the dram-shops as to the church. We waste more than seven hundred million dollars a year for the debasement of the intellect and the destruction of the body, and pay with reluctance less than one hundred million for education and culture, then we throw over fifteen times as much into the seething caldron of rum as we contribute annually to the cause of religion!

This vast waste would provide a school house, thoroughly appointed for every fifty or our youth, and set teachers in the midst of them of the highest possible culture. Aside from the lamentable havoc and waste caused by the use of rum, we are compelled to support courts and prisons and an army of official benefactors in the name of charity that would be almost wholly unnecessary, were the people taught to shun rum as their greatest enemy. Then would we have work instead of charity, plenty instead of starvation, clean and sightly garments instead of rags, wholesome houses instead of hovels, and health instead of beggary and distress.

Supplementary Reading.

It is not long since that a principal of one of the great schools in this busy city received a note by the hands of one of his pupils which ran thus. "Please see what the bearer brings to school in the way of reading." The writer of the note had seen the boy stop at a newstand and lay in a stock of papers to be perused during school hours. The principal by kindly questioning the lad drew forth the fact that he had read one sixteen page so called "Boy's Paper" through every day. And he was one of several hundreds. In some directions the power to read is a harm.

The reader used in the school-room is soon completed, the studies are mechanically pursued, there is no distinction made in the style of writing, so that the boy goes out and devours all kinds of reading. The power to read needs careful cultivation. It is estimated, that one book in ten is an injurious book. The pupil should be guarded, he should be advised.

We have long since claimed that to inspire a love of good reading is the main end of the schools. President Elliot says the fruit of all education is the desire to learn. A foundation must be laid on which the pupil will build. As it now is a very large number leave the school with no idea as to what Literature is. They possess the power to read and use it without discretion.

This incident will show what may be done. A boy of sixteen had been to school and was in a factory. Where he boarded, a young lady asked him if he ever learned any poetry, and proceeded to recite Campbell's "Rainbow." This stimulated him to learn some pieces of standard poetry she selected, and he became a lover of good literature. There were discussions had in the parlor of that boarding house that aroused in him a power of judgment and a critical sagacity.

Now such a work as that lies in the power of every teacher. And he may be much assisted by text books that have been lately prepared with much skill. Among the best that have come to our notice are "American Prose" and "American Poems." In these interesting facts and the lives of various Americans are given to assist the pupil. By discussing the writer, his life, and his work, the pupil will learn there are other interesting things beside "Dare Devil Dick." He will learn to admire the beautiful expression used by these authors; he will discover that there is something exquisitely fine in their way of saying things. This will open a new field to him; it is one he will delight to walk in.

Both of these volumes may be used in all kinds of schools and they will surely educate a love for choice literature.

"American Poems" and "American Prose" are two volumes published by Houghton, Mifflin & Co., Boston: and deserve to be on the desk of every teacher.

CITY NOTES.

PROF. S. S. PACKARD, president of Packard's Business College, sailed on the 9th inst. for Europe. He has long needed rest and recreation, for his labors are very arduous. His students, to testify their regard, obtained the steamboat *Americus* and accompanied him down the bay to Sandy Hook. Parting with him there and wishing him a pleasant voyage, they went on to Rockaway. In spite of the rainy weather, supplied with an excellent band discoursing pleasant music, the excursionists had a pleasant time, returning to New York, and then went for a sail up the Hudson.

THIEVES IN SCHOOL.—Two little girls, Nellie Murphy, aged seven years, and Sarah Brady, aged nine years, were brought up at the police court on a charge of robbery. Nellie Murphy is a little girl with bright eyes. Sarah Brady is a little taller and particularly active and sharp. Both of them have been attending the same school and occupying the same seat. A few weeks since they began staying away from school and afterward stayed out late evenings, roaming about on the east side of the city. According to their story, while in school they concocted a plan to rob their schoolmates and pledge whatever articles they succeeded in getting at a pawn shop. What appears particularly strange is that these children, who were barely able to read and write, should be capable of such knavery. Their first move toward a felony was to ask little girls in the street if their mother had sent them to the grocery store. If so, how much money had she given them. They would get the child to show the money and while one held her the other would take the money and run.

On Thursday afternoon, after school, Sarah Brady told her little companion Nellie that there was a chance to steal things on board of the Harlem and Calvary cemetery boats. When the steamer came up they got on board, not knowing where they were going. On the lower deck there were several small articles of freight. When the opportunity offered they both gathered up what they could carry, two cans of tomatoes, two bundles and a parasol, and rushed into a stateroom, where they hid them, intending to carry them ashore at the first landing. The bundles and cans were identified by the deck hands and the girls were detained.

DR. HERMANN COHN, of Breslau, has proved by examinations instituted at his suggestion by thirty competent oculists, in about as many cities of Europe and America, of the eyes of forty thousand pupils, that near-sightedness is developed in schools, and increases regularly with the grade of the classes up to the professional schools. The causes he attributes to bad lighting, bad seating, which induces improper positions in study, and badly printed books. Too often in school-books the type is too small, the lines are too close together, and the lines are so long that the eye is strained by the changes of position and focus it has to undergo in passing from one part of the line to another. Having regard to the preservation of the eyes, he insists that letters should not be allowed in school-books the visible part of which is less than a millimetre and a half (1-17 inch) high, and that two millimetres (1-13 inch) are better; that the lines, by the standard of the shorter letters, should be three millimetres (1-8 inch), never less than two and a half millimetres (1-10 inch), apart. The strokes of the letters should be at least one-fourth of a millimetre (1-100 inch) apart; the letters should be distinctly separated; and the lines should not be more than ninety millimetres, or three and one-half inches long.

M. Rabourdin, of the French expedition which has been surveying the Sahara for the Trans-Saharan Railway, has discovered numerous beds of cut flints, and within a distance of 500 miles of Ouargla has met with not less than eighteen old manufactures of these flints, proving that the desert was habitable in prehistoric times. He believes, also, that the trade of the Sahara was formerly much more active than it is now, but that it consisted chiefly in slaves. He reports having met with remains of those large-horned oxen, which according to Herodotus, were found in the country of the Garamantes.

PERFUMING BENZINE FROM OFFENSIVE ODOR.—According to Mr. Fairthorne benzine may be freed from all offensive odor by shaking it up well with quiklime, about three ounces to the gallon.

FOR THE SCHOLARS.

Shakespeare's Ariel.

Once upon a time—so long ago that it would puzzle even the wisest men to tell exactly when—the beautiful Duchy of Milan had for its ruler the good Duke Prospero. Prospero's younger brother Antonio had for a long time been jealous of Prospero's good fortune, and wished to reign in his stead. So he went about among the soldiers, and by means of lies and bribery persuaded them to rebel against their ruler. Prospero was driven from his throne and Antonio was made Duke in his place. In this mean and cruel act he was assisted by Alonso, King of Naples.

Antonio, securely seated on the throne, commanded a band of soldiers to take the unfortunate Prospero and his little baby girl from prison in the middle of the night, and put them on board a miserable old wreck, which was towed far out to sea and then left to the mercy of wind and wave. It seemed hardly possibly that the weak, worm-eaten bark could last the night out. Before the old boat left the dock, however, an old friend of Prospero's, who had heard of Antonio's wicked plan, contrived to slip down to the wharf unobserved and to stow away in one corner of the vessel some food and clothing, and the wonderful books of magic which Prospero valued even more than his dukedom.

Instead of going to the bottom of the sea, the old wreck was driven ashore on a lonely island inhabited only by a deformed monster named Caliban. Caliban's mother, Sycorax, a hideous old witch who had been bent by age almost in the form of a hoop, had died just before Prospero had landed on the island.

Now, Prospero owned (so the story says) a magic cloak and wand which enabled him to work all sorts of wonders. By means of these and the arts which he learned from his wonderful books of magic he compelled Caliban to become his slave. Whenever he refused to obey, Prospero had only to wave his wand and command the little elves of the air to torment him with dreadful cramps and aches and pains that he would roar out for mercy and promise to be good again.

One day, soon after Prospero was cast away on the island, while walking along the shore he heard the queerest sobs and moans. Every time he passed under a great pine-tree he noticed that the moans grew louder and louder. There would be a soft sighing and whispering, and then the most piteous groans. Prospero found out that the old witch Sycorax had shut up one of the fairies of the air in the trunk of that same pine-tree, and now that she was dead there was no one to break the spell. He waved his wand to and fro, and tapped the tree gently with it, and, lo! the trunk opened, and out tripped the imprisoned fairy, Ariel. So grateful was he for his deliverance that he promised to serve Prospero for a term of years, and at the end of that time he was to be as free again as "mountain air." With the help of the magic books Prospero and Ariel together were able to do the most astonishing things. They could fill the island with the sweetest music; they could people the air with strange and shadowy shapes, and they had, moreover, power over all the fairies of the sea, the air and the woods.

Here on this lonely island the good man lived for many years. Again and again had he watched, until his eyes were weary, for a passing sail. But no ship came in sight, and Prospero had about given up all hope of going back to his native land. In the meantime his daughter Miranda had grown to be a maiden of wonderful beauty and learning, for her father had plenty of leisure, and spent one-half his time in teaching her.

Well, it happened just in time that Alonso, King of Naples, and his son Ferdinand, who was then a handsome young prince, had sailed with a large fleet of ships for Carthage, to celebrate the marriage of the Prince's sister with the King of Tunis. Antonio, Prospero's wicked brother, also accompanied them. On their way home they passed not far from the lonely island, and Prospero, learning from his magic books that his enemies, Alonso and Antonio, were on board the largest ship, wished to punish them for their cruelty to him some years ago, and at once summoned Ariel, and ordered him to cause a dreadful tempest to burst over the island, but to manage it so that neither ship nor crew should be lost.

It rained, and it blew, and the angry wind lashed the foaming waters into great curling, white-crested waves. Peal after peal of thunder shook the island to its very center. There was red lightning, and blue lightning, and yellow lightning; chain lightning, forked lightning, and lightning in great sheets of blinding flame. The air was filled with such unearthly sounds and noises that

the men on board the ship were nearly wild with terror, and finding that the vessel was being driven towards the rocks they cast themselves overboard and were all washed safely ashore; Ferdinand at one end of the island and his father at the other, each supposing that the other was drowned. While the Prince was bitterly mourning the supposed loss of his father, he heard strains of the most beautiful music, and then a sweet voice singing.

Ferdinand all the while kept following the music which was made by the invisible Ariel until he reached the cave where Prospero and Miranda were sitting. The Prince thought he had never before looked upon so lovely a maiden, while Miranda for her part thought so brave and noble a youth could hardly be mortal, but must be a spirit. Prospero took Ferdinand's sword from him and imprisoned him, but finally forced the young man to be his servant. In this way Ferdinand and Miranda saw each other daily, and grew to love each other more and more.

In the meantime the old Duke called his faithful Ariel and bade him tell the elves of the air to torment the King of Naples and the wicked Antonio with cramps and stings, and pinches, to within one inch of their lives, and to cause all manner of strange shapes to appear before them. So Ariel led the King and Antonio, who were wandering about the island, into a dismal swamp, where they sank up to their hips in a foul black mud, and barely escaped with their lives. There, in the lonely, dark, unbroken forest they kept hearing the one word—"Prospero! Prospero!" repeated again and again; now in a low whisper, and now in a shrill shriek, until it seemed as if every leaf in the woods had a voice and was taunting them.

Their guilty consciences troubled them so that they fell upon the ground and wept bitterly at the remembrance of the terrible wrong which years ago they had done the Duke Prospero and his little daughter. Prospero overheard them; and being satisfied that they were truly sorry, he hurried back to his cave and throwing over his shoulders the rich cloak, and girding on the jeweled sword which he wore when he left Milan, hastened to the woods and made himself known to Alonso and Antonio. They recognized him at once, and falling on their knees begged his forgiveness. He raised them from the ground, assured them of his love and pardon and led them to his cave, where they found Ferdinand alive and well. In a few hours the royal ship was found safe and sound in one of the little bays of the island, and Ariel gradually brought to the cave by twos and threes the entire crew, whom the King supposed lost during the tempest.

The next day, after freeing Ariel and Caliban, Prospero and his friends set sail for Naples, where they arrived after a pleasant voyage. A short time afterward Ferdinand and Miranda were married amid great pomp and splendor, and lived happily to the end of their days. —*Christian Union.*

PLAYING TRICKS WITH SPIDERS.—When a fly comes into a spider's web he gets caught by his feet and sets up a loud buzzing with his wings. Now a tuning-fork makes a buzzing like a fly, and experiments have been made with that on the spiders. A fork was held against a twig that supported a web, and the spider ran to the center of his web, and felt to see on which strand the vibrations was; having found this out he ran out to the fork and seized hold of it. A fly was dipped in turpentine and put on a leaf, and then the fork was sounded; the spider ran to the spot and seeing the fly seized it and ate it. Here it is plain he thought the buzzing was made by a fly. He was not smart enough to know that other things could buzz besides a fly. The efforts the spider makes to determine by his feet on the threads just where the buzzing is are curious and well worth watching.

MR. W. J. ROLFE'S edition of Shakespeare's plays, now nearly completed by Harper & Brothers, has attained an almost unprecedented success, about 30,000 of each play having been sold in the United States. The work is about to be put upon the English market, where it has been highly commended by the leading English critics.

"CHILDREN should be led to make their own investigations and to draw their own inferences. They should be told as little as possible and induced to discover as much as possible. Humanity has progressed solely by self instruction, and that, to achieve the best results, each mind must progress somewhat after the same fashion is continually proved by the marked success of self-made men." —*SPENCER.*

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A GRAMMAR SCHOOL GEOGRAPHY, Physical, Political and Commercial, By William Swinton. Ivison, Blakeman, Taylor & Co.; New York and Chicago.

Mr. Swinton has become identified with text-book literature. His contributions to geography, language and historical school books are all of a very respectable character, many of them evincing a very high degree of ability to comprehend the needs of the school-room. It is plain that he enters into the spirit of reform and improvement.

The present volume is a great advance over the "complete course" and yet that seemed to us to have features of extraordinary merit. The "complete course" met with great favor, because it gave full and precise information respecting each state. The plan found to be most useful is (1) a general text to be studied by all and then a special text to be mastered only by the pupil residing in the state described. The volume before us has a supplementary study of the middle states—in this the states are mapped out by counties and described with fullness.

Without attempting to paint all the exalted features in this volume, we may call attention to: 1. Physical Geography is clearly treated, so that the pupil understands the configuration of the land as an actuality. The climate, minerals, inhabitants are explained. 2. Political Geography sets forth the resources, industries and commerce of each country. 3. Special maps are given wherever needed. 4. The maps are finely executed and seem to render the book valuable as a work of reference.

The drawing illustrations are all of the best style of art. They illustrate the schools, colleges, mines, animals, productions, buildings, mountains, etc., and thus have a positive value. 6. Map drawing is taught after the "Apgar" method. 7. The matter is well cast into a suitable form for memorizing. 8. There are valuable synopses, reviews, tables and questions.

It will thus be seen that the book is well designed for school-room purposes. It will be found to further the better forms of education which will be welcomed by all who desire to see our schools advance.

Among the numerous publishers who have issued editions of the revised New Testament that of Porter & Coates of Philadelphia must be classed as the most correct. They have prepared a comparative edition containing the two versions arranged in parallel columns, so that the alterations can be seen at a glance. This arrangement makes the work one of great popular value, as it does away with the necessity of using two books and saves the time that would be occupied in seeking corresponding passages.

MAGAZINES.

The July number of the *North American Review* will contain an exhaustive article on Indian affairs by Carl Schurz, and a very lively one on "The Power of Public Plunder" by James Parton.

The June *Art Amateur* is specially strong in practical instructions for decorative work, including lessons in landscape painting in oil, in china painting and gilding, together with designs for embroidery, and a plate and six tiles for a fireplace by Camille Pissarro. Among the numerous attractive features, we note a page of charming sketches by Gregory, Volkmar and other members of the Salmagundi Club, a page of drawings from pictures in the Paris Salon, a page of

invitation cards by Geo. R. Halm and a number of sketches by Leon and Perov Moran, the clever sons of Edward Moran. There is also the usual choice array of illustrations of ceramics, needlework, furniture and decoration, including some suggestive stained glass designs and some peculiarly pleasing specimens of the style of the First Empire in France. The recent music festival in New York is criticised; the question "Is our Art only a Fashion?" is editorially discussed, and the Vanderbilt drawings, lately presented to the Metropolitan Museum, are mercilessly exposed by Clarence Cook.

GENERAL NOTES.

IVISON, BLAKEMAN, TAYLOR & Co.—This firm have admitted George C. Cathcart, Esq., as a partner. Mr. Cathcart has been an indefatigable assistant, and has well won his promotion. It has been our unexpressed comment on almost every visit to this publishing house while observant of the press of work, the going on of a vast business in an orderly manner, that Mr. Cathcart possessed marked abilities and that he put them unreservedly at the service of his employers. We, therefore, rejoice in his advancement and wish him and the enlarged firm the prosperity they so justly deserve.

Orchids from Brazil.

Mr. Ernest Morris lately returned to this city from Brazil, bringing a large number of rare and valuable orchids, which he has collected for Mr. Erasmus Corning of Albany, N. Y., whose collection is valued at more than \$100,000, and is considered the finest in the United States. Mr. Morris expects to return to hunt orchids in Columbia and Ecuador.

The business of orchid hunting may fairly rank among the most adventurous of the occupations of men, and the number of enthusiastic naturalists engaged in it is larger than is commonly suspected. As a contemporary points out, the owners of great floral establishments in Europe and America keep a regular staff of hardy botanists, who are to them what special correspondents are to a great newspaper. If the truth were known, it would probably be found that professional orchid hunters have explored more remote parts of the world than the foreign representatives of journals have ever done, but the world at large knows it not, because the orchid hunters are contented with the discovery of new specimens or filling their wallets and cases with rare specimens, and then returning quietly to their employers, while the special correspondent is bound to write and let everybody know where he is and what he is doing. A few years ago an orchid, *Cypripedium stonei*, variety *platinum*, was sold in London for over \$750. This is undoubtedly a tremendous sum to pay for a single plant, but the probability is that it had been brought from some distant part of the world at great risk and expense—perhaps from the Yunnan borders of China, the fever-stricken and chimpanzee-inhabited jungles of Borneo, the mysterious lands lying north of the head waters of the Amazon, the forests of Madagascar or the northern extremity of the Transvaal. Great orchid merchants pay enormous sums annually to support their emissaries abroad, and in their estimation the discovery of a new specimen is so valuable that, if merely told of its whereabouts, they will send out expeditions in search of it. Fifteen years ago an eminent West End (London) firm of florists heard of a strange orchid in the interior of Jamaica, and, thanks to their expenditure of a large sum of money, and the patience and energy of their emissaries, they were in possession

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The Four Largest Diamonds in Europe.

1. The Orloff diamond weighing 194 3/4 carats. This is cut in the old rhomboid shape and forms the extremity of the Russian sceptre. It came from the old mines of India, and is said to have once formed one of the eyes of the celebrated statue of Sherigan in a temple. At a later period it was found, with another large diamond, in the throne of the Shah Nadir of Persia. When he was murdered it was taken by a French grenadier who had taken service there, and who fled with it to Malabar, and sold it there to a ship captain for 14,000 thalers, and he handed it over to a Jew for 84,000 thalers. The Jew sold it at a greatly advanced price to an Armenian merchant, from whom the Empress Catherine II. obtained it in 1775, at Amsterdam, for 450,000 rubles, an annuity of 2,000 rubles, and a diploma of nobility.

2. The Regent or Pitt diamond, weighing 136 3/4 carats; value 1,200,000 thalers. This is one of the French crown jewels. It came from the mines of Golconda, East Indies, where it was found in 1703 by a slave, who in order to conceal it, wounded himself in the leg and hid it under the bandage. He promised the stone to a sailor if he would procure him his liberty. The sailor enticed him on board his ship, took the stone, drowned the slave, sold the diamond to the Governor of Fort St. George (whose name was Pitt) for £1,000 sterling, squandered the money and hanged himself. It was purchased from Pitt in 1771 by the Duke of Orleans, for Louis IX., its price being 3,375,000 francs. It weighed at that time 410 carats, and was afterward cut and polished in perfect diamond form, by which, however, it lost two-thirds of its size. This operation took almost two years, and cost 26,000 thalers. As much as 9,000 thalers was expended in diamond dust, and the pieces broken off still had a value of 48,000 thalers. In 1792 it was stolen, together with all the crown diamonds, at the plundering of the Tulleries, and was lost sight of until, in an anonymous letter to the Minister of Police at Paris, the place of its concealment was accurately described. It was found together with the rest of the most valuable crown jewels. The Republic then pawned it to the merchant Treacow in Berlin. After its redemption it adorned the sword of Napoleon I.

3. The Koh-i-nor (mountain of light), weighing 106 1/16 carats, belonging to the Queen of England; value, 800,000 thalers. The history of this diamond is lost in the darkness of Indian tradition, and can be traced with certainty only since the beginning of the fourteenth century. It was for hundreds of years a crown jewel, and was rightfully regarded as a talisman of sovereignty, because it was always the booty of the strongest conqueror. In this manner, after it had repeatedly changed owners, in 1813 it came into the possession of the ruler of Lahore; it was captured by the English in 1850, after the rebellion of

the Sikh troops, and presented to Queen Victoria. It weighed at that time 186 1/15 carats, but it had been so awkwardly cut—several hundred years before, by a Venetian lapidary, that it produced little effect. Queen Victoria had it newly cut by the most skillful workman in the celebrated diamond cutting establishment at Amsterdam. The work was completed in 1852, in thirty-eight days.

4. The Florentine or Tuscan diamond, weighing 139 1/2 carats; value, 700,000 thalers. This is among the treasures of the Emperor of Austria. It is a pure diamond, but is of a yellowish color. It was the largest of the diamonds lost by Charles the Bold in the battle of Granson in 1476. It was found by a Swiss on the public road in a casket, in which there also lay a costly pearl. At first the man scornfully threw away the diamond, but then picked it up again, and sold it for a florin to a clergyman, and he sold it for three francs. It was purchased for five thousand florins by a wealthy merchant prince. Then a Genoese purchased it for a little more, and sold it for double the price to the Regent of Milan. On the occasion of the dispersion of the treasures of Milan, Pope Julius II. procured it at auction for 20,000 ducats. It is now in the Imperial Treasury at Vienna.

Here is something for boys to make a note of. The medical examiner of one of the great life-insurance companies, who is not a total abstainer, in talking about the use of liquor the other day said substantially this: "Young men frequently make application for insurance who testify, in answer to the inquiry on the blank which they are required to fill, that they 'take a glass now and then,' or words to that effect. No such applicant ever gets insured by me. I throw him out in a minute. He who takes a glass now and then when he is young is pretty sure to take it oftener as he grows older, and the effect upon his health is almost certain to be injurious in the extreme. Speaking simply as a physiologist, and not as a moralist at all, I say that no person can afford to touch liquor before he is twenty-five years old. The young man who 'takes a social glass now and then' is a bad risk for any life-insurance company."—*S. S. Times*

The news from Russia is still gloomy. The new Emperor finds it necessary to live in a veritable fortress, surrounded by body guards and sentinels. He seems inclined to adopt a policy of severity toward the Nihilists. His latest utterances incline toward finding out the cause of this intolerable political plague, and if possible to cure it. It seems more and more clear, that the Nihilism which Russia needs most to tear lies in her own bones and blood, and nerves. These are socially, politically, and religiously unsound. Russia needs more education for the masses, and less superstition. She needs a field for the uneasy and rebellious students that give her trouble, because Satan always finds enough for idle hands to do. She needs an improved system of agriculture for the emancipated serfs, and these latter should be freed from a good many burdens placed on them by their former lords.

AN EMPTY SEAT.—A clergyman started to go to a distant place at an hour when there was no conveyance thither. After he had gone a short distance he was overtaken by a gentleman and a boy in a carriage. The horse was reined in at once, and his owner said with a smile: "This little fellow insists on my stopping to ask you to ride; he says it is such a pity to have an empty seat." The minister gladly accepted the offer, and thanked the boy for his thoughtfulness. "It is a way he has always had," said the father. "He never enjoys what he can't share with others. This was a beautiful trait of character. There are thousands who can aid others at little cost to themselves. Mr. Beecher says, 'Others can see to walk by the lantern you carry and you lose nothing by it.'"

It is well known that certain fowls fill their digestive apparatus with gravel and pebbles, which act as millstones in grinding up their food. Recent investigation shows that other animals addicted to similar habits on a larger scale. Seals swallow stones weighing from one to two and sometimes even three pounds each, while one investigator found, not long since, ten pounds of these boulders in the stomach of a sea lion.

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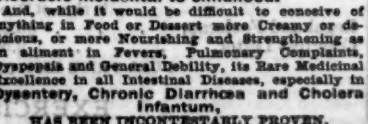
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